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TITLE: METHOD, APPARATUS AND SYSTEM FOR HIGH-SPEED TRANSMISSION ...
INVENTOR: AGAZZI
APPLICATION NO.: UNASSIGNED,
CONF. NO. ; DOCKET NO. 13449US03
ATTORNEY: JAW, PHONE: 312-775-8000

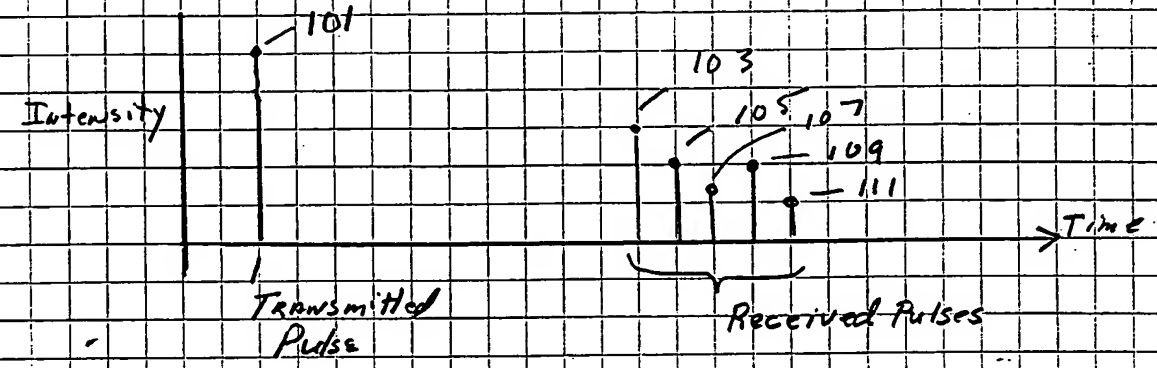

Figure 1A

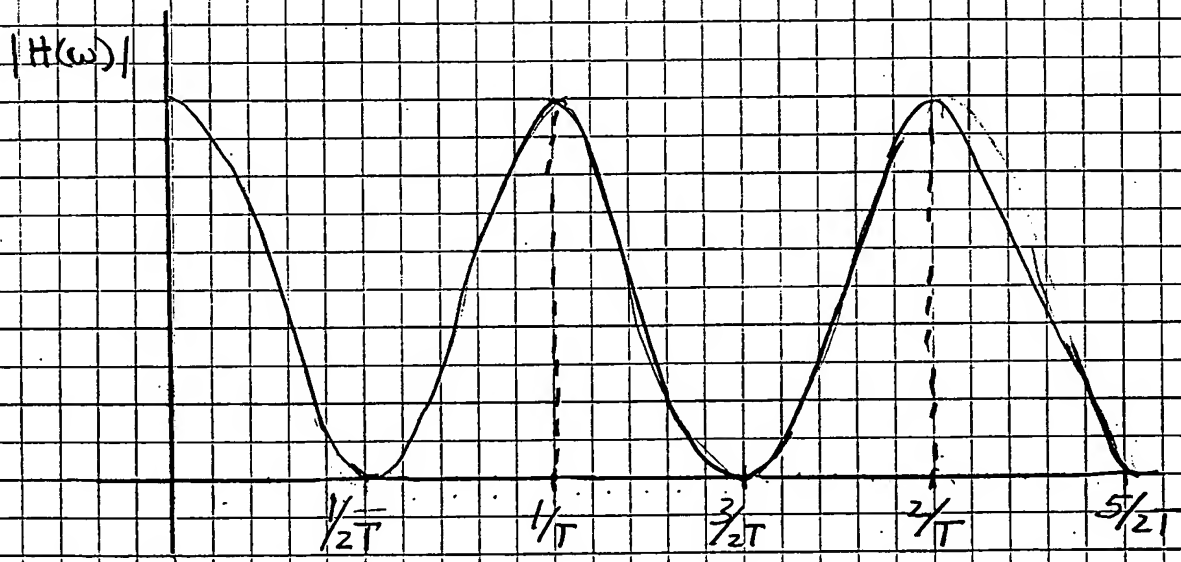

Figure 1B

B600-36980

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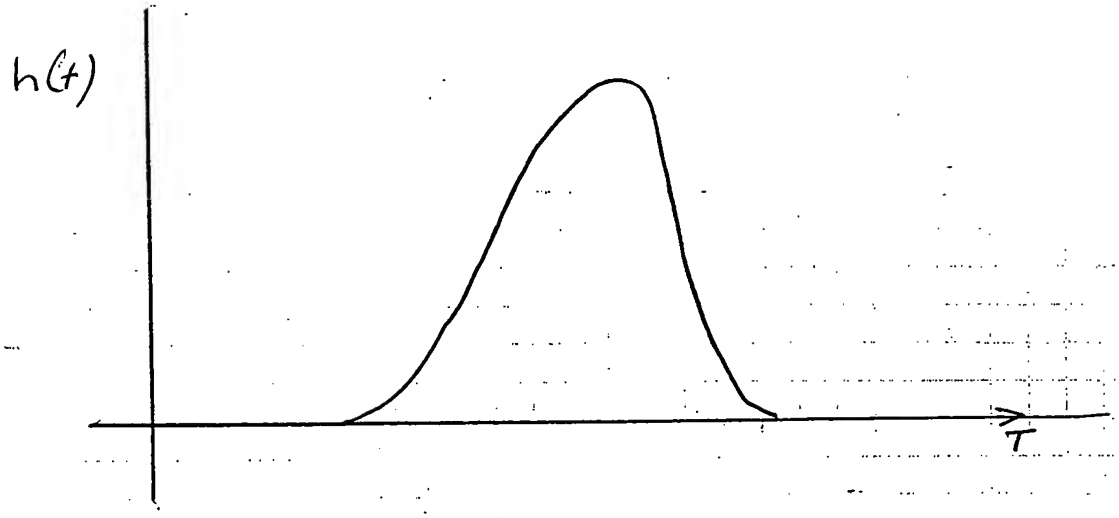

Figuee 1C.

Data out
Data Processing 129
Optical Receiver 127
125
Optical Transmitter 123
Data Processing 121
Data In

Figure #1D

Multicarrier Modulation Block Diagram (Transmitter)

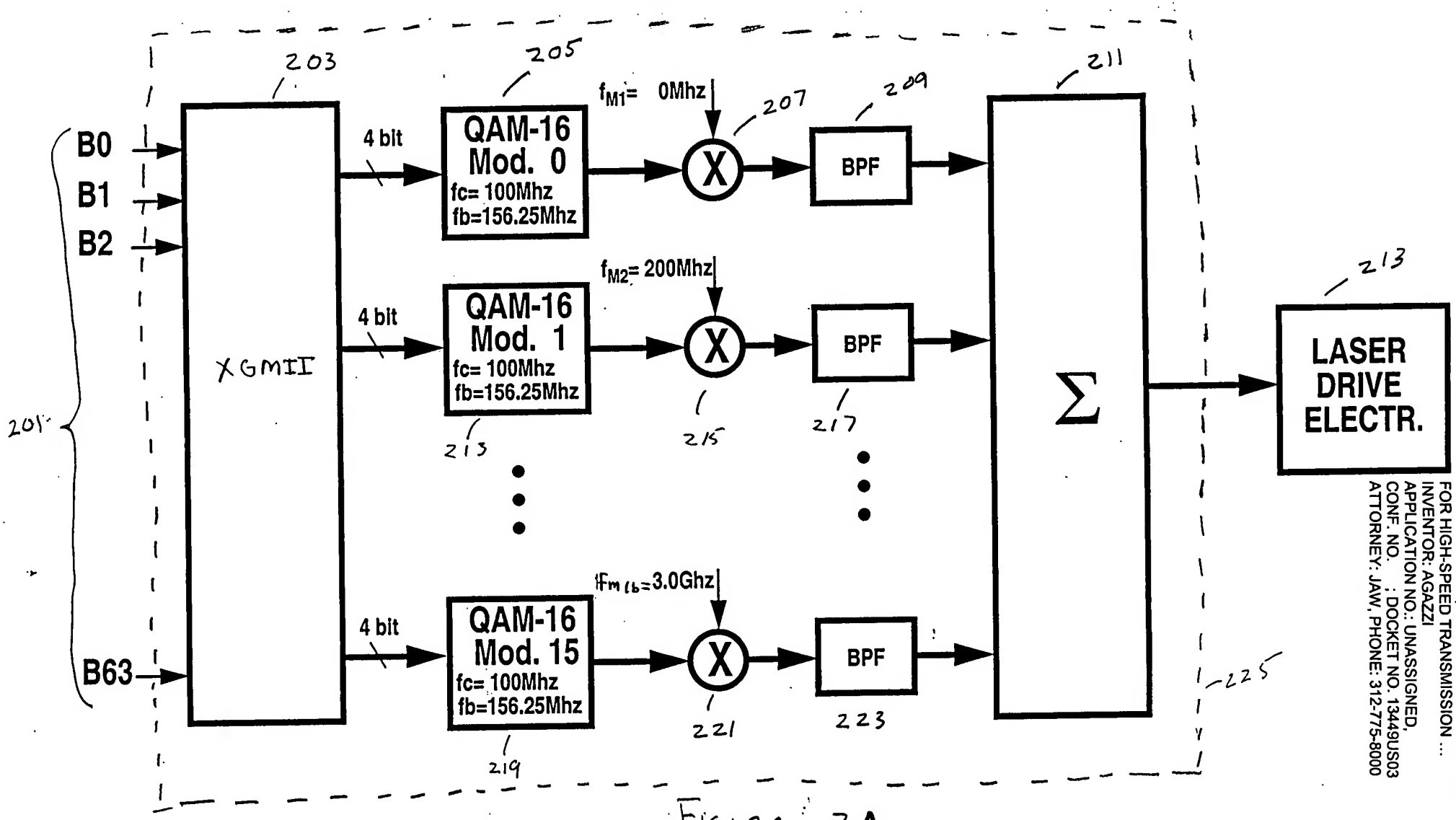

Figure 2A

TITLE: METHOD, APPARATUS AND SYSTEM FOR HIGH-SPEED TRANSMISSION ...
INVENTOR: AGAZZI
APPLICATION NO.: UNASSIGNED,
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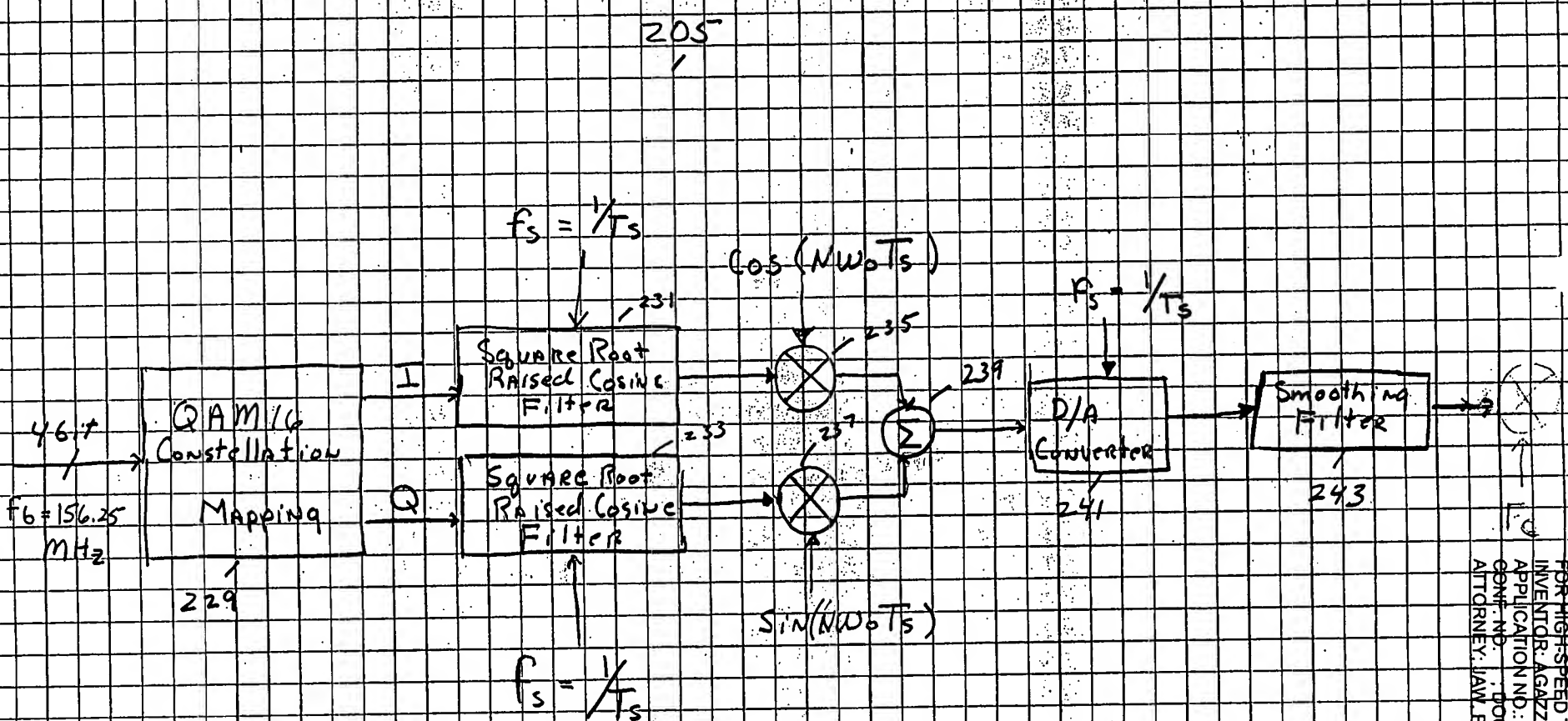
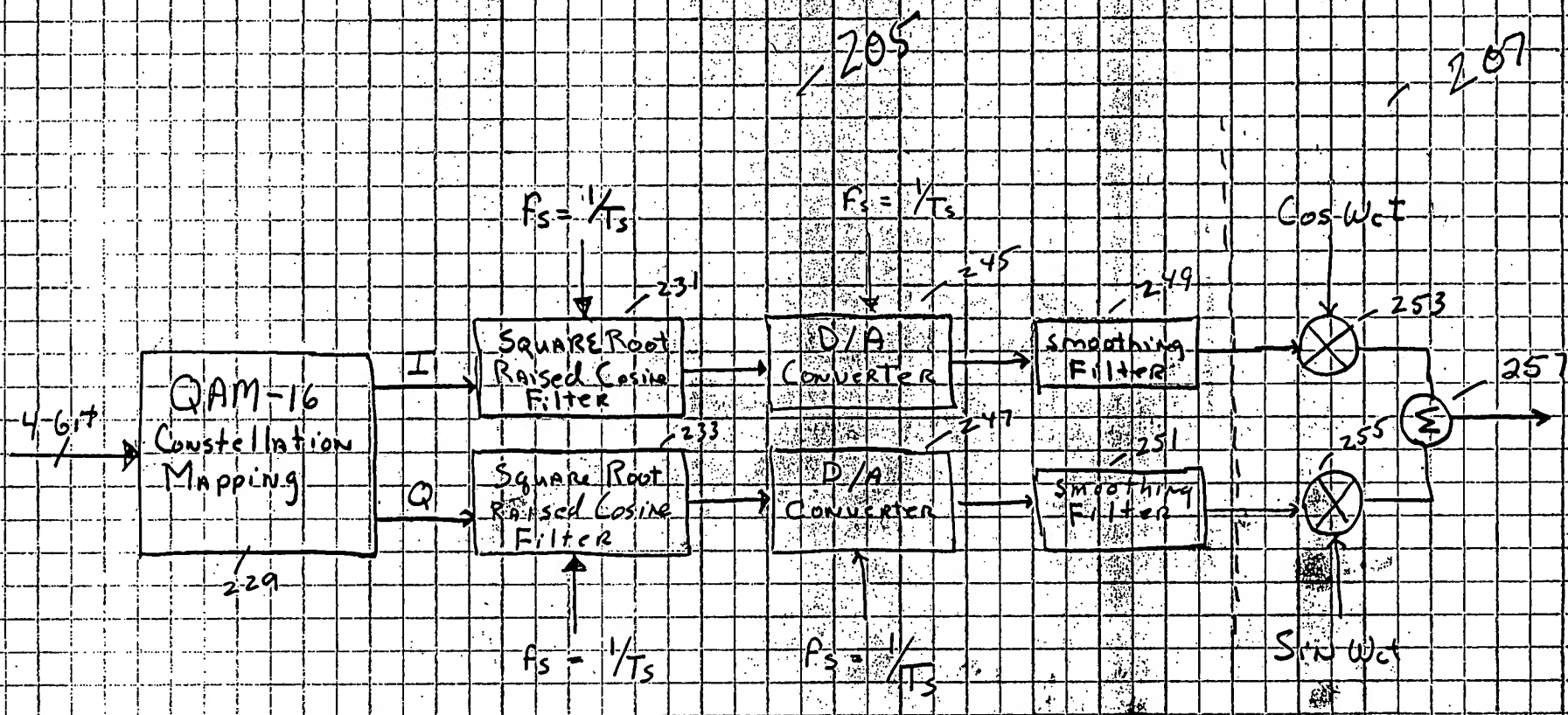


T_s = Sampling period - digital

$\omega_N = 2\pi f_s$ = digital carrier angular frequencies.

Figure 2B

TITLE: METHOD, APPARATUS AND SYSTEM FOR HIGH-SPEED TRANSMISSION...
INVENTOR: AGAZZI
APPLICATION NO.: UNASSIGNED,
CONF. NO.: ; DOCKET NO: 1344.0503
ATTORNEY: JAW PHONE: 312-775-8000



T_S = Sampling period for DSP blocks
$\omega_c = 2\pi f_c$ = Analog carrier angular frequency

Figure 2C

TITLE: METHOD, APPARATUS AND SYSTEM FOR HIGH-SPEED TRANSMISSION
INVENTOR: AGAZZI
APPLICATION NO.: UNASSIGNED,
CONF NO. DOCKET NO. 1344US03
ATTORNEY: JAW PHONE: 312-775-8000

Multicarrier Modulation Block Diagram (Receiver)

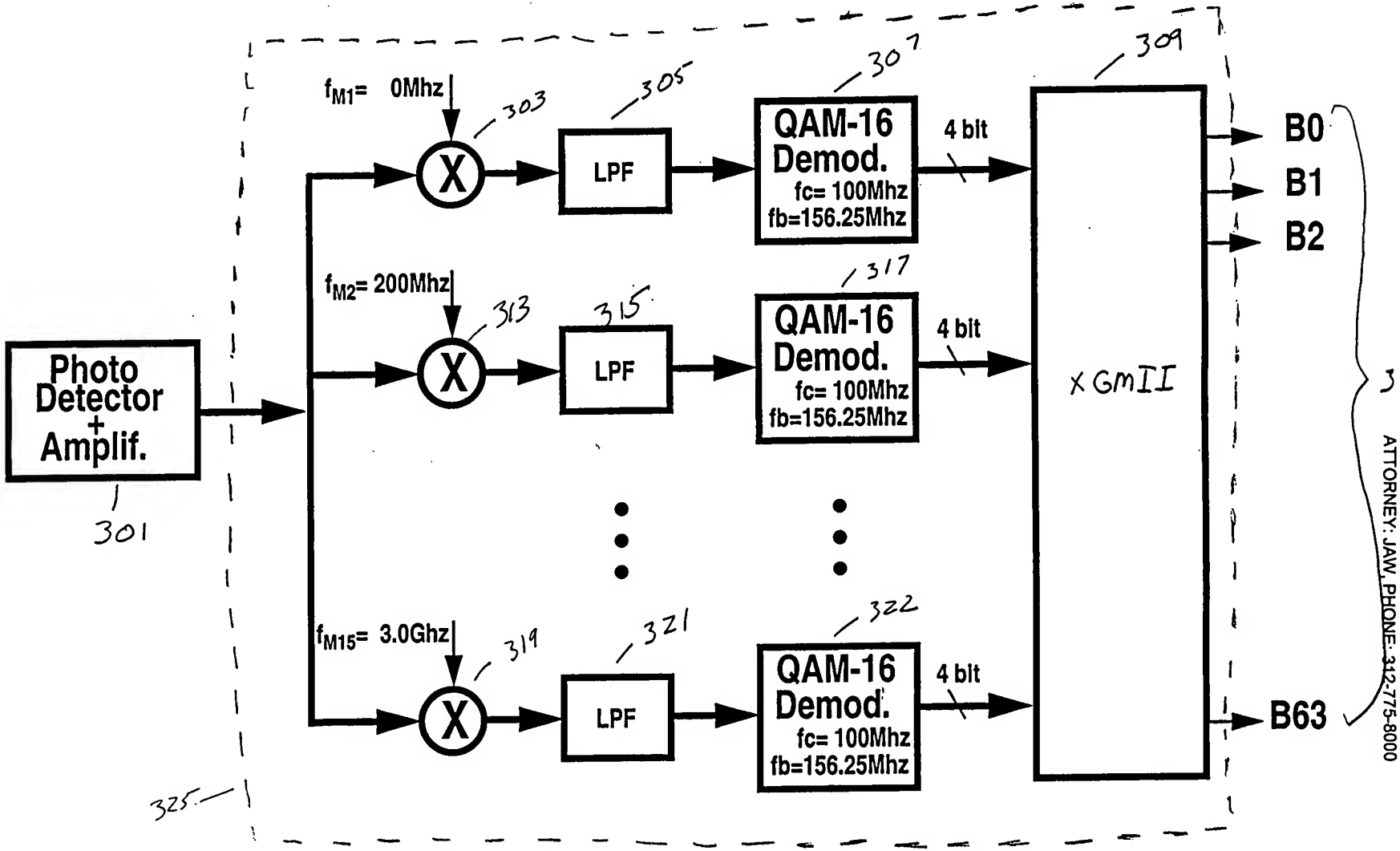


Figure 3

TITLE: METHOD, APPARATUS AND SYSTEM FOR HIGH-SPEED TRANSMISSION ...
APPLICATION NO.: UNASSIGNED,
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DOCKET NO. 13449US03
ATTORNEY: JAW, PHONE: 312-775-8000

Alternative Implementation of Multicarrier Modulation (Transmitter)

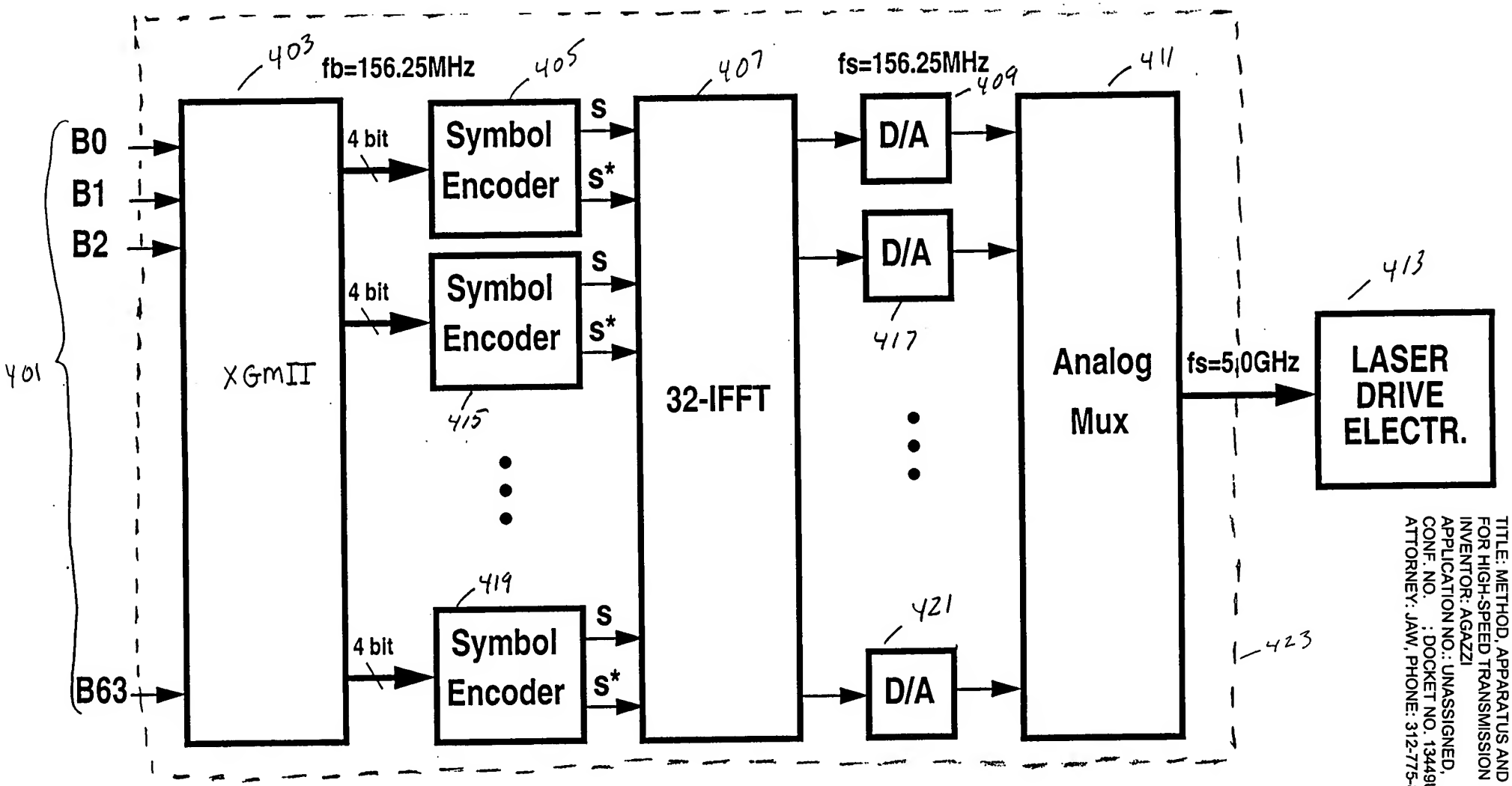

Figure 4

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Alternative Implementation of Multicarrier Modulation (Receiver)

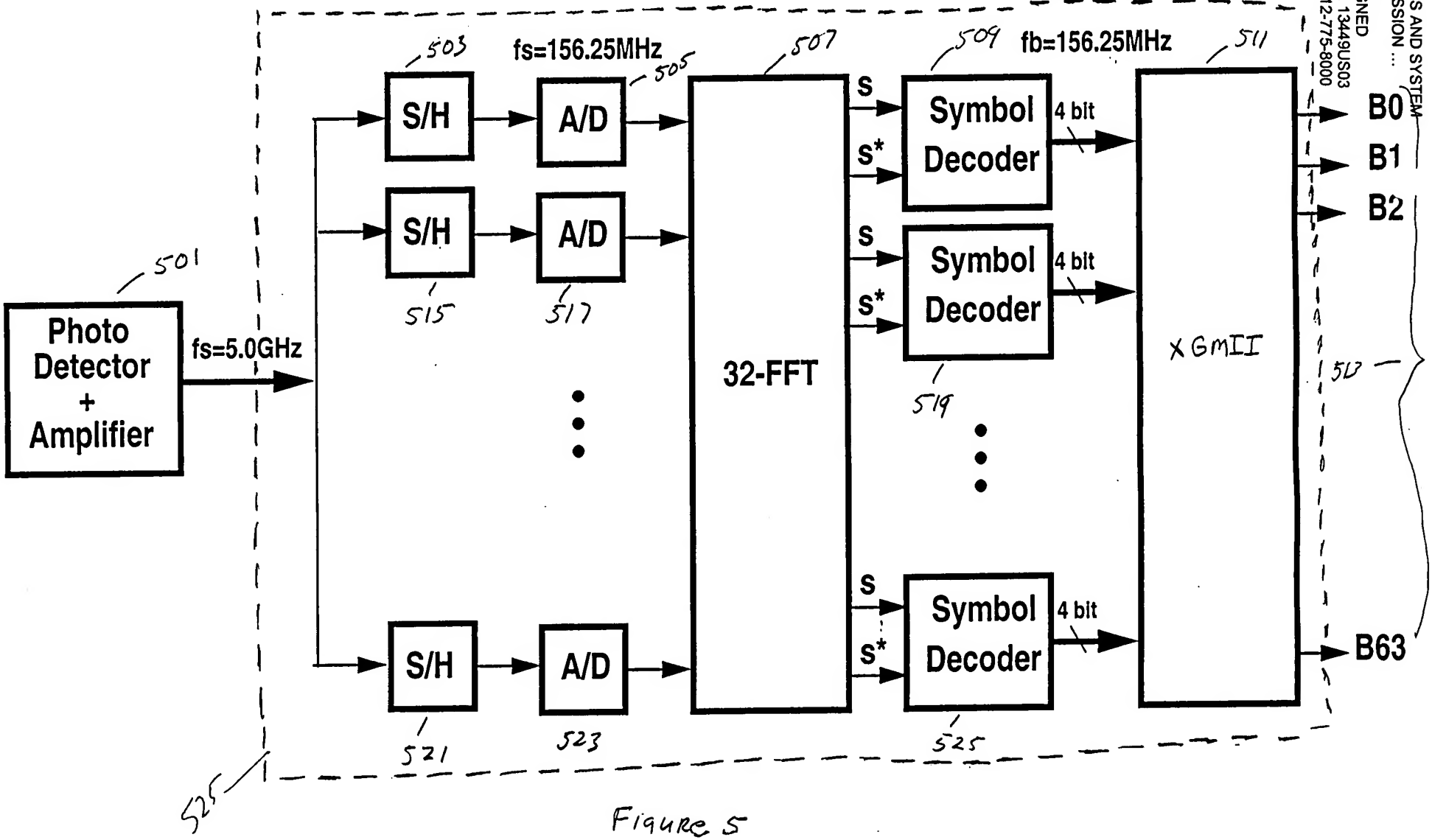

Figure 5

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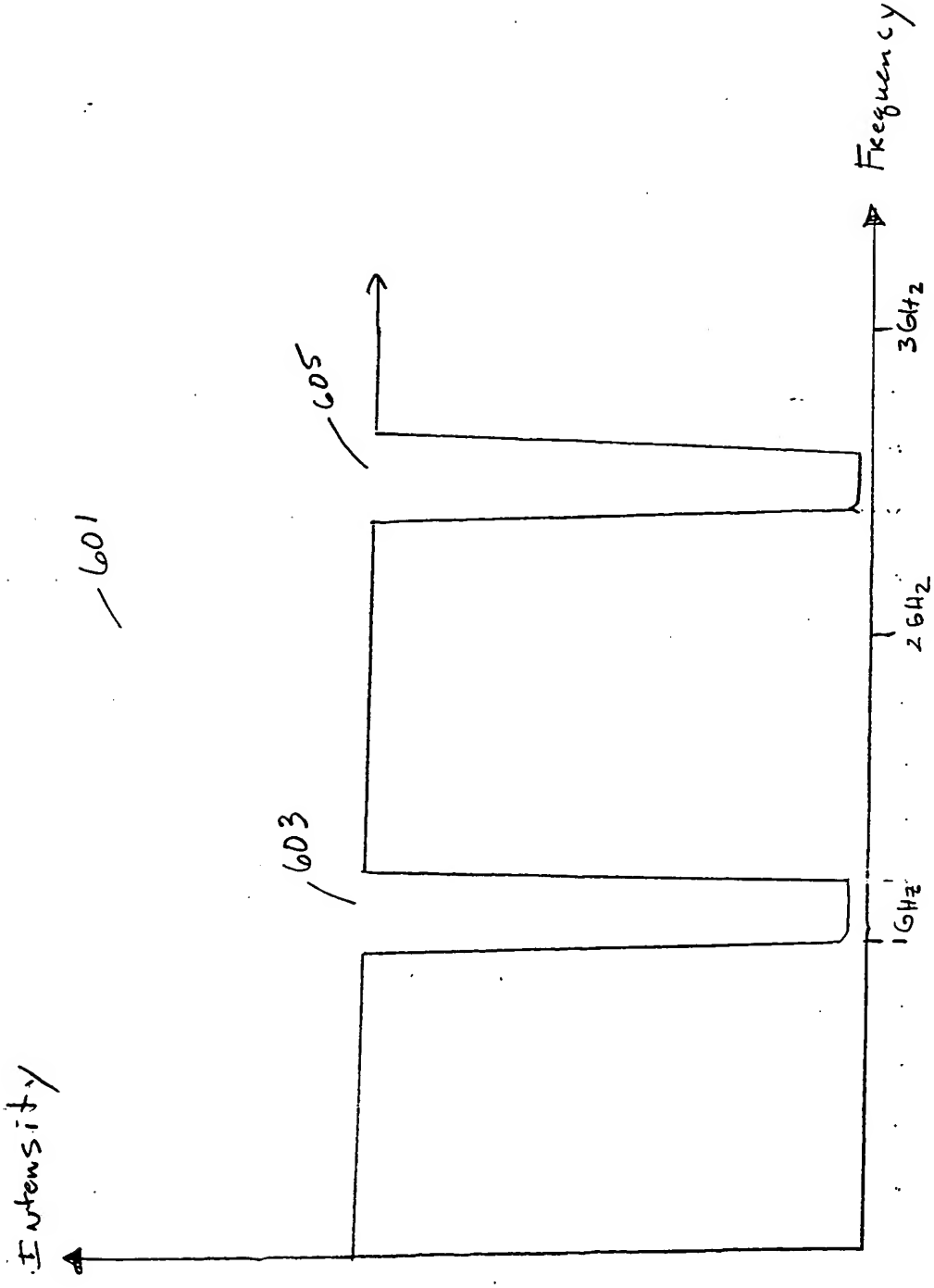

Figure 6

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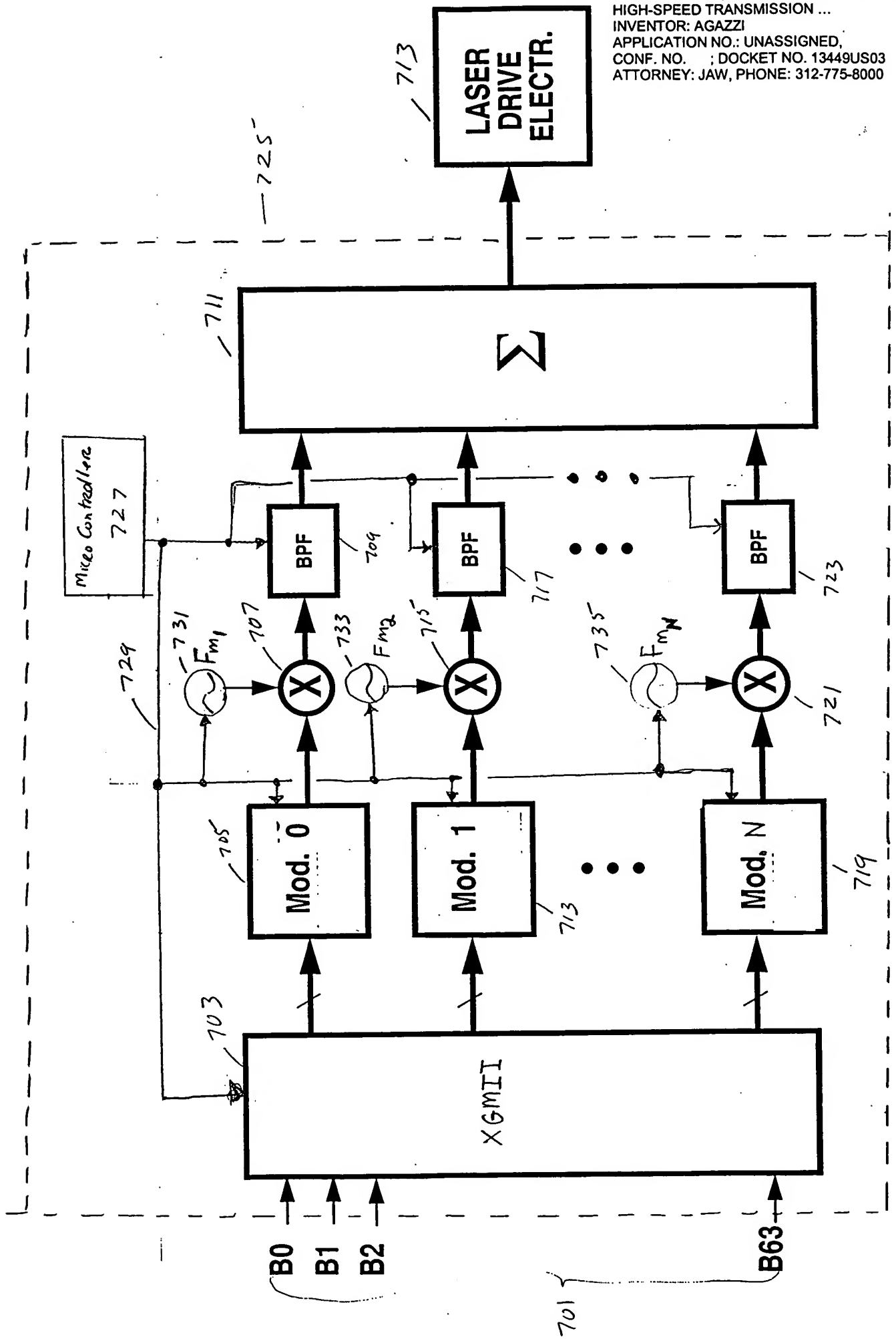

Figure 7A

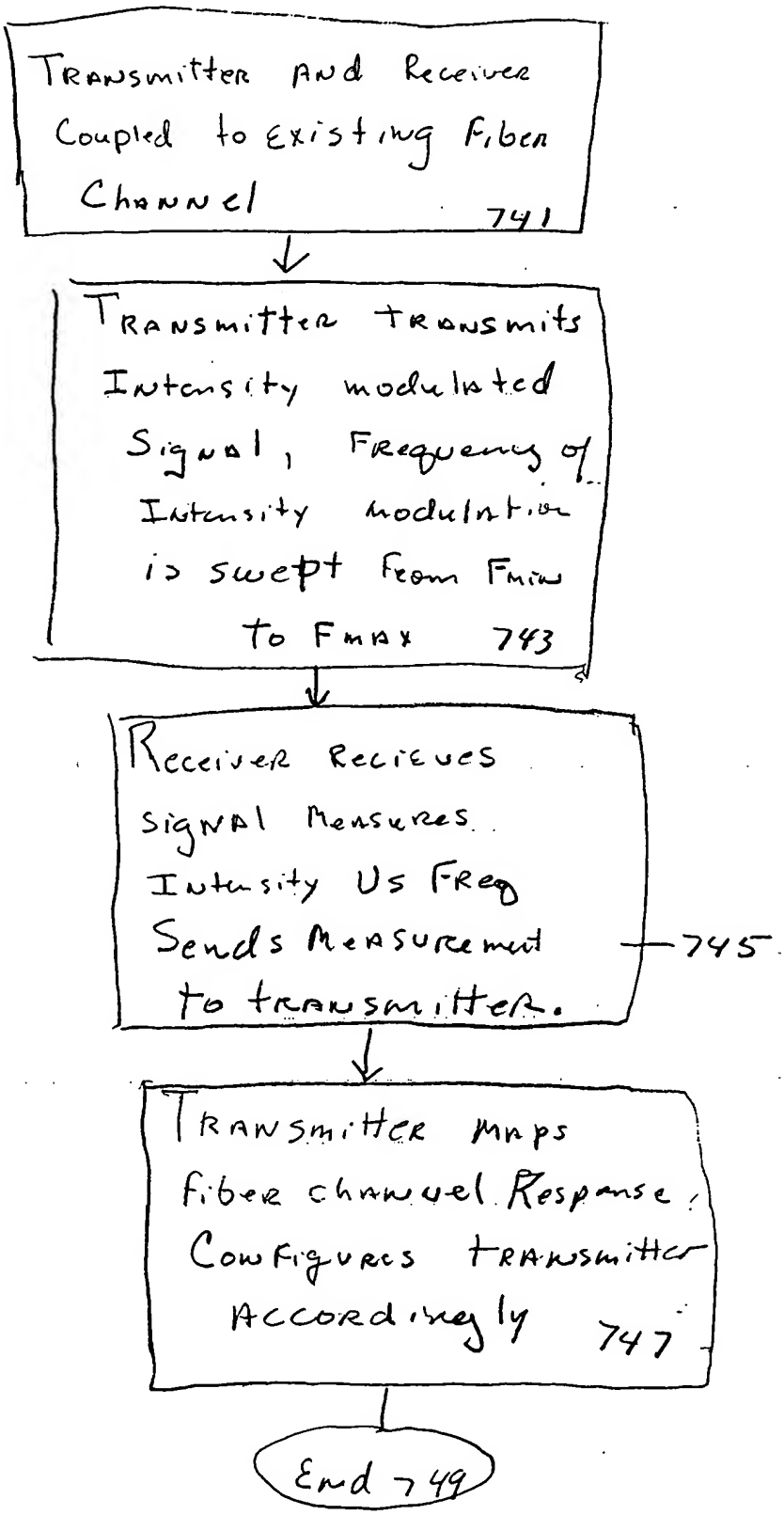
Transmitter and Receiver Coupled to existing Fiber Channel 741
Transmitter transmits Intensity modulated Signal, Frequency of Intensity modulation is swept from Fmin to Fmax 743
Receiver Recieves signal Measures Intensity Vs Freq Sends Measurement to transmitter. 745
Transmitter maps fiber channel Response, Configures transmitter Accordingly 747
End 749

Figure 7B

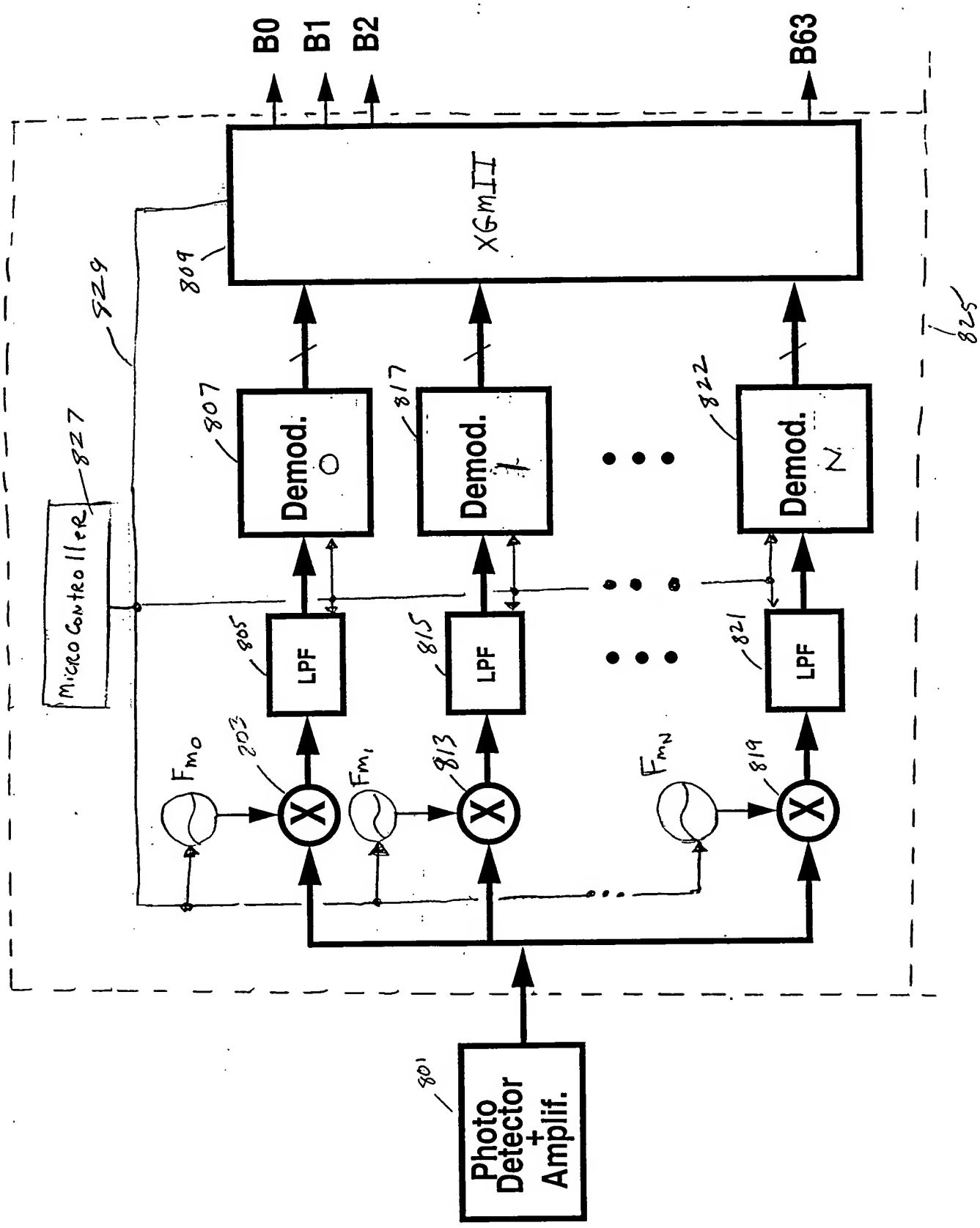
B0
B1
B2
B63
XGMII
809
829
825
827
MICROCONTROLLER
807
Demod. 0
817
Demod. 1
822
Demod. N
805
LPF
815
LPF
821
LPF
F_{M0}
203
F_{M1}
813
F_{MN}
819
801
Photo Detector + Amplif.

Figure 8

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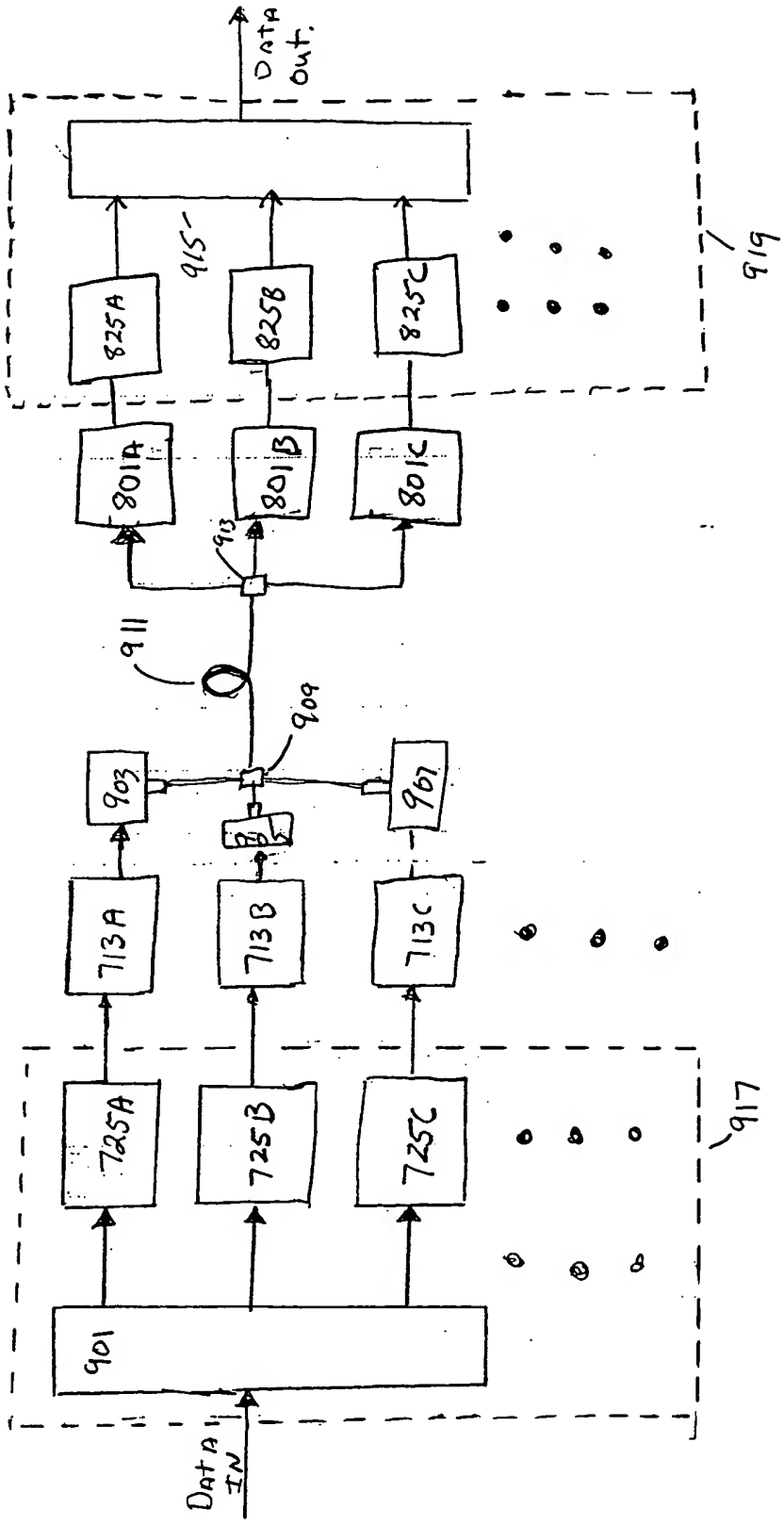

Figure 9

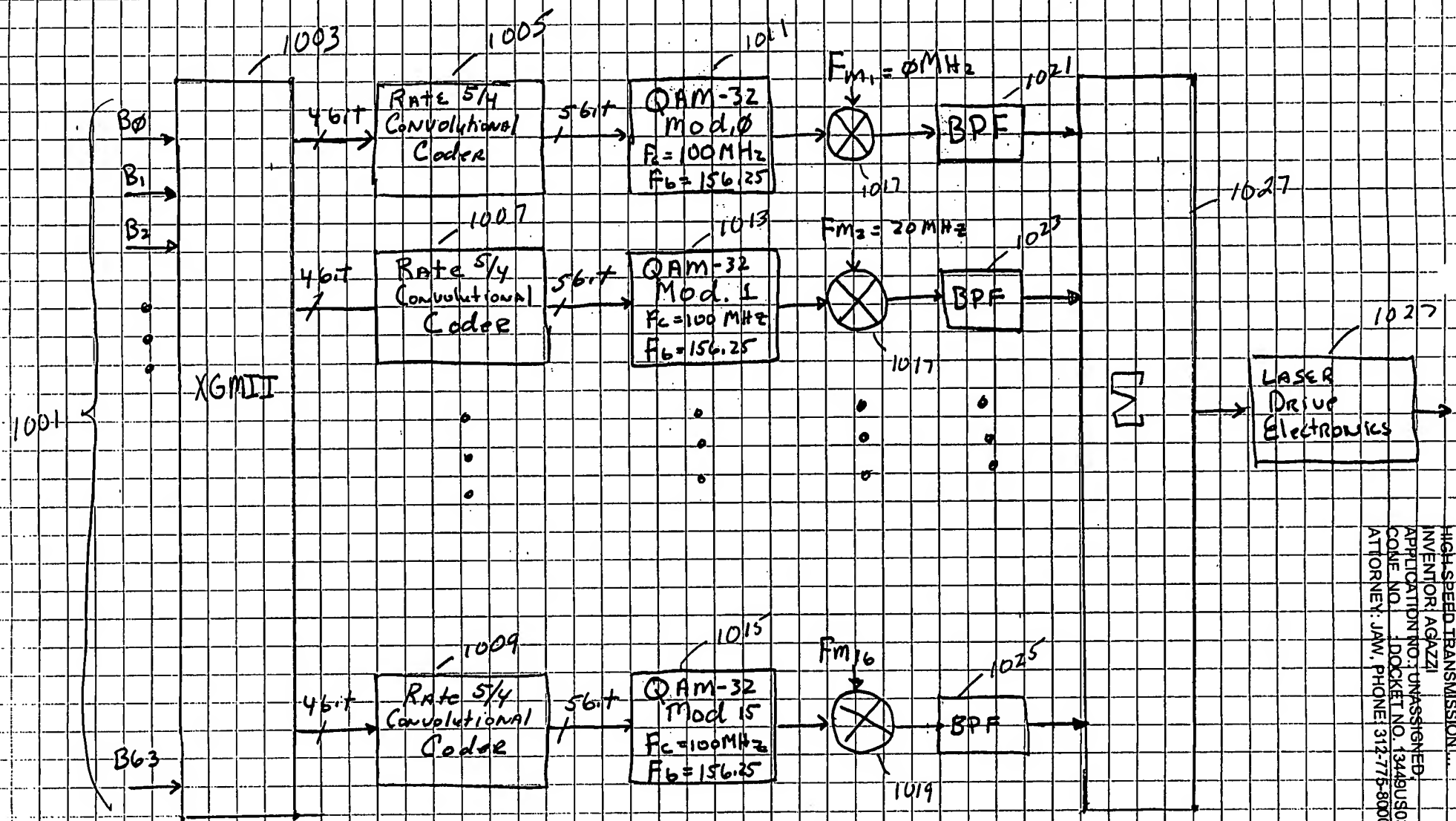

Figure 10

TITLE: METHOD, APPARATUS AND SYSTEM FOR HIGH-SPEED TRANSMISSION...
INVENTOR: AGAZZI
APPLICATION NO: UNASSIGNED
CONF. NO.
DOCKET NO. 1344BUS03
ATTORNEY: JAW, PHONE 312-775-8000

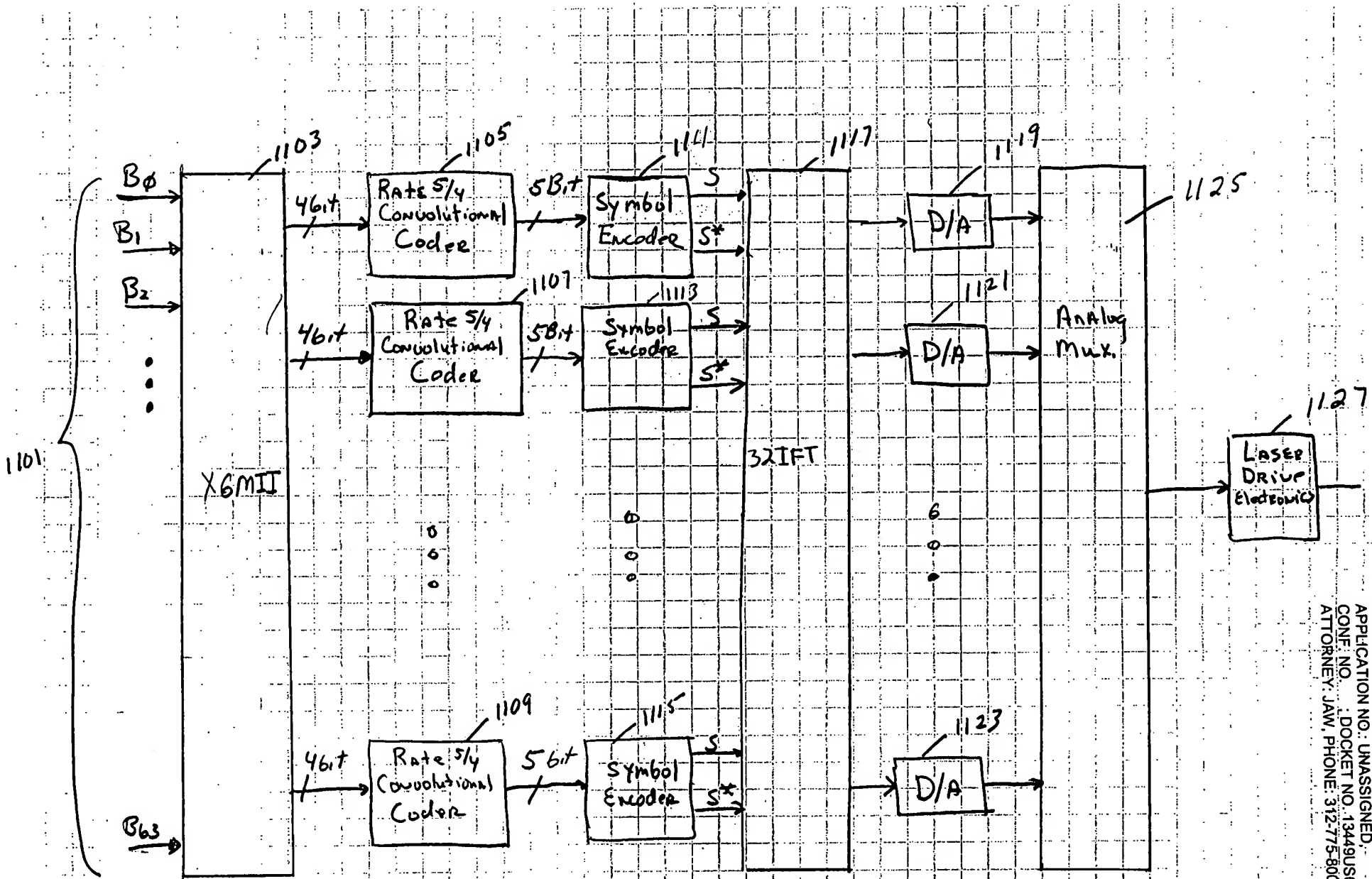

Figure 11

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INVENTOR: AGAZZI
APPLICATION NO.: UNASSIGNED
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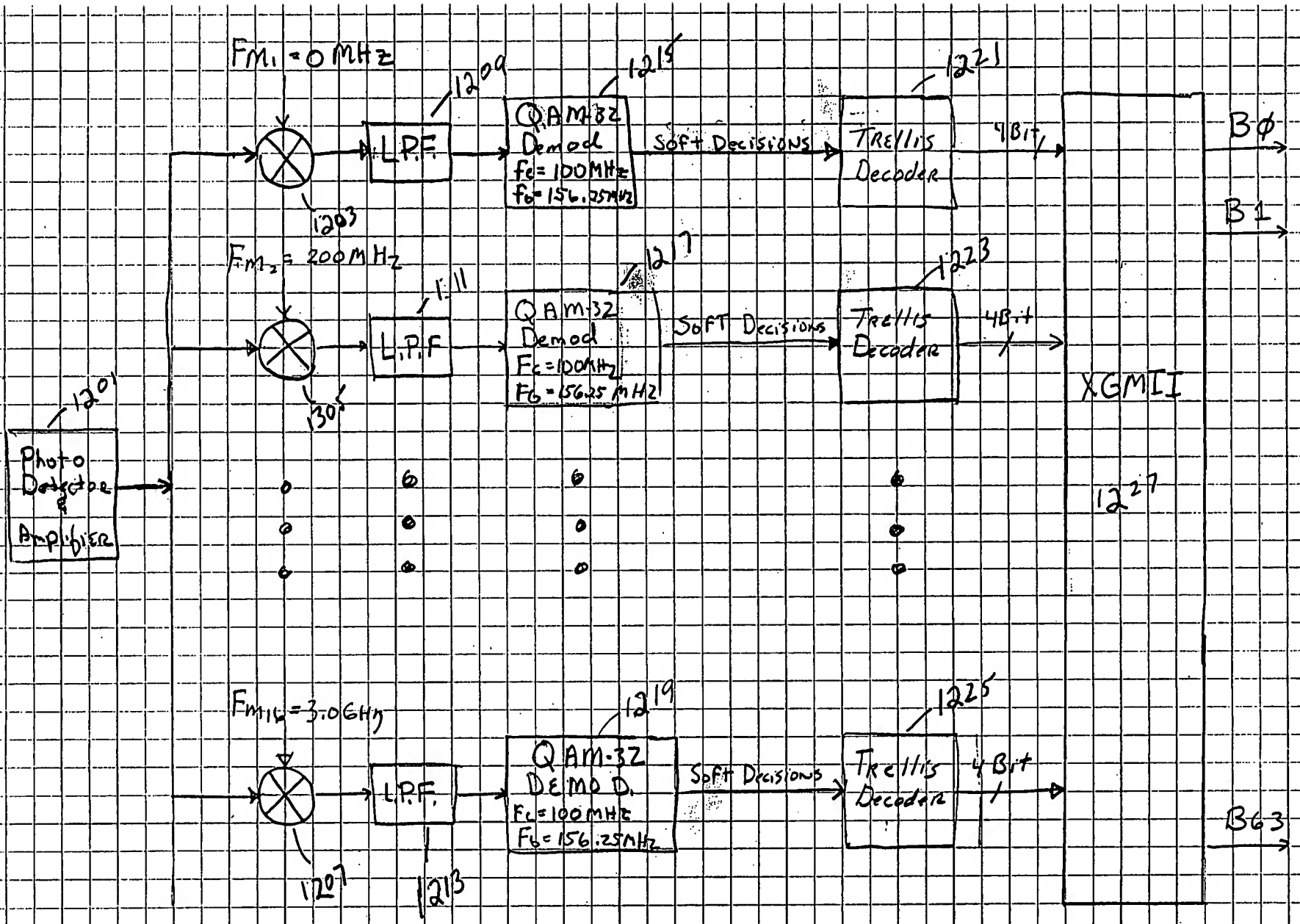

Figure 12c

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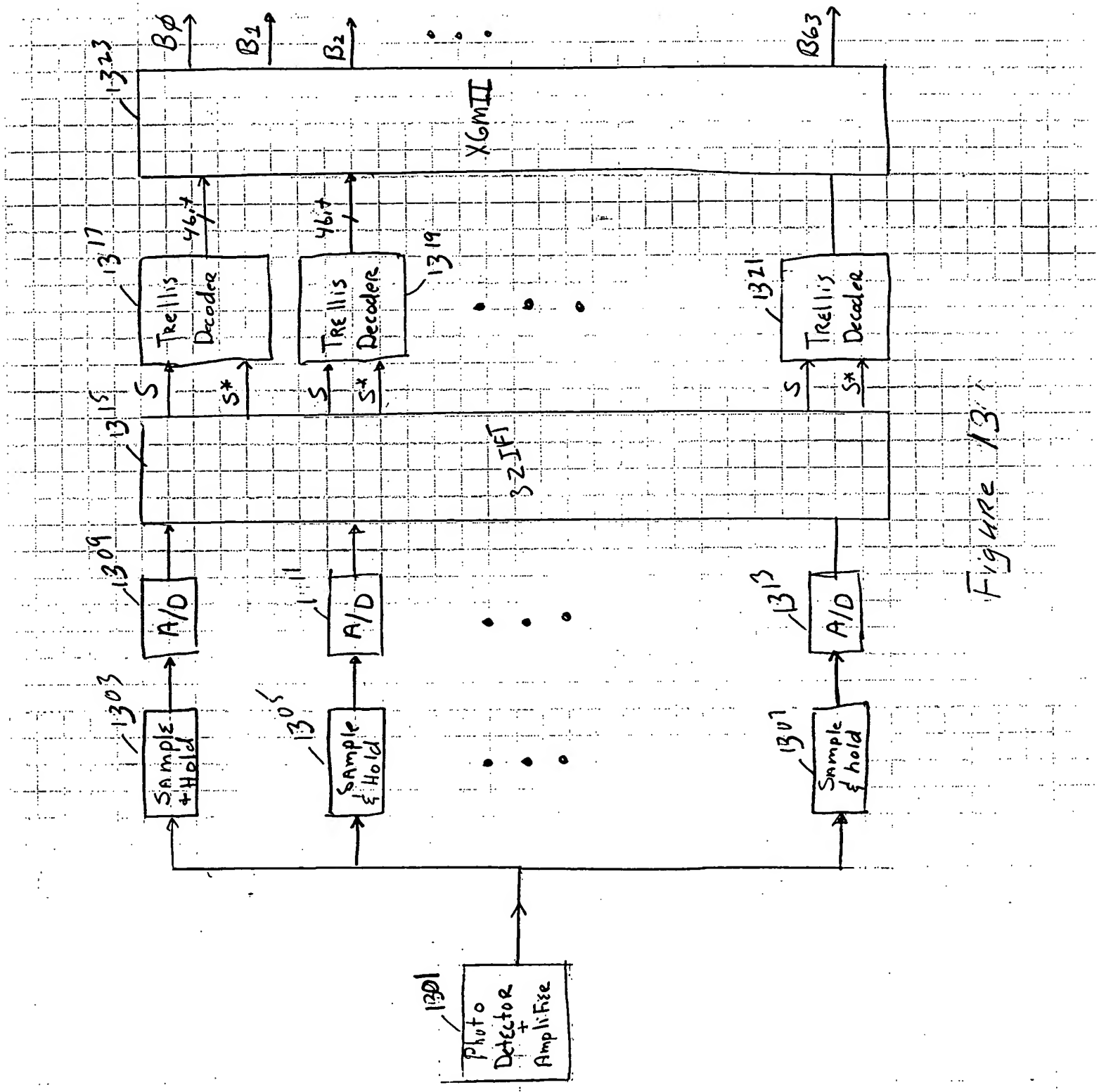

Figure 13